

## Five Things We Can Learn About Trading From One of Our Greatest Fighter Pilots

By Ken Long

COL John Boyd , USAF was a national treasure. One of the most gifted and effective fighter pilots of all time, he went on to revolutionize the way the armed services thought about command, control and combat effectiveness on the modern chaotic battlefield. He was instrumental in reforming the process by which the Department of Defense designed and procured platforms for all services. The intellectual and visceral contribution he made to the art of war for which he is most often remembered is the “OODA Loop”, and the implications of this theory have reached every corner of our current military doctrine. I believe the insights he developed for fighter combat, and the doctrine of warfighting have an even broader applicability to the world of business and specifically to the art and science of trading. There is already quite a cottage industry that adapts his insights to the business world. I want to briefly examine a few of his ideas and their implications for traders.

Briefly, the OODA Loop is an acronym that stands for “Observe-Orient-Decide-Act”. In his now famous diagram of this iterative feedback process, Boyd describes a “decision cycle”, a process set in motion by the recognition of a meaningful input (observe) that triggers the selection of a mental model or mindset appropriate for processing this input (orientation). The mental model and thought process generate a decision to act that steers you to a more desirable state (decide), and then this decision is put into action (Act). There is nothing particularly novel about this sequence; it is intuitively compelling and natural. Boyd’s genius lays in his examination of the many avenues of feedback between each of these steps, and the implications for improving the cycle time to get from observation into action.

There may not be a combat environment that requires more precision, split- second timing, and effective decision- making than fighter to fighter combat, where the consequences of failure are so catastrophic and the margin for error so slim. This laboratory of human decision making under stress was where Boyd forged the insights that make the OODA loop a powerful combat multiplier in the air. Its applicability to all forms of competitive interaction make his story and insights so compelling. His story is well told in *Boyd: The Fighter Pilot Who Changed the Art of War* by Robert Coram.

Why do you care? You might find his insights make you a better trader. Here are a few direct applications of his insights for traders.

1. **Orientation drives the train or “Believing is seeing”:** Boyd described orientation as the integrated whole of our personal analysis and synthesis of our experience, culture, new information, and genetic heritage. In other words, it’s our paradigm, or the paradigm we are currently using if we have more than one to choose from. It’s the context you use to frame a problem, which identifies the values you will use to evaluate courses of action, and provides the foundations of your motivation to act and compete. It feeds forward all of these elements into the Decision loop, but perhaps even more importantly it establishes the framework and sensory apparatus to seek the new observations that will trigger a new decision cycle. Your world view, your mental model, and your paradigm act as a filter for you to sense the world and to make sense of the input you can gather. These beliefs operate at the unconscious level to define what is knowable and what is observable. These paradigms have evolved because they are generally a very effective way of organizing a chaotic world into a manageable entity that permits planning, goal setting and achieving. It describes our sense of cause and effect. The pervasiveness of paradigms are such that when we experience things outside of that paradox, it can seem like the world has just come apart and we are stunned by the unexpected, the unforeseen. It’s the experience that makes you say in surprise “Man! I never saw that coming”. This line of reasoning suggests that we are well- served by examining our paradigms, assumptions and beliefs with care and attention, to define environments in which a given paradigm is likely to be effective, and the boundary conditions that define the limits of its utility. Some of Van Tharp’s most powerful teachings are precisely in this area of paradigms and beliefs.
2. **Construct your dashboard wisely:** Using an older simpler and performance- inferior aircraft, Boyd routinely out-flew hot shot fighter jocks piloting the Air Force’s most sophisticated fighters, because he was able to apply the advantage of simplicity. He flew the aircraft as an extension of his own body and will. He had internalized to an instinctive and personal level the capabilities and limitations of his jet, and its simple, barebones dashboard layout supported rapid observation. His opponents struggled consciously to make sense of the complicated instrument panels before them that flooded them with too much information, which made them take their eyes

off of Boyd while they tried to figure out what was going on. It was in that moment of sensory overload that they would routinely discover Boyd on their tail in the dominant, decisive position. We should remember the differences between need to know and nice to know, and that newer isn't better; better is better. As a trader, I must give careful consideration to the amount, the format and timing of my information feeds to ensure they are supporting my decision making and not getting in the way.

3. **Perfect practice makes perfect:** Boyd embodied the warrior spirit and spent his life in pursuit of refining his approach to and his understanding of air-to-air tactics. He invented impossible maneuvers, and refined their execution with physical models, computer models and actual practice. He over-trained his critical skills so that in the moment of decision there would be no hesitation and he could execute maneuvers on a dime. This insight pertains to both orientation (warrior spirit or trading identity) and decision. The payoff was performance to a high standard in the shortest possible time.
4. **Operate inside your opponents decision cycle:** This is often interpreted as simply acting more quickly, but Boyd's insight was to add in the factor of doing the unexpected. The unexpected is what creates confusion in your opponents mind and causes them to slow down or stop to figure out what is wrong with their paradigm. When you multiply reduced decision cycle time AND doing the unexpected, you get tremendous payoffs. As a trader, you have to recognize that if you do what everyone else does, you will get what everyone else gets. And if your execution time is slow because of equipment limitations you are unnecessarily harming your performance, and if you are waiting to get too much redundant confirmation of your signals, you may be missing the opportunity in your search for certainty. Finally, this insight suggests that by looking at the market in new and different ways, you have the possibility of uncovering unique insights and fresh opportunities to get better than average results.
5. **Always wear a parachute and know the location of the ejection lever:** When you are operating in a risk filled environment, where consequences of failure have serious implications, it's important to know when to eject, and have the opportunity to live to trade again. Honor your stops and know the limitations as well as the capabilities of your system (which includes you). Know your envelope of performance!